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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,783	05/14/2001	Kristen Lynne McKenzie	7341	9667

27752 7590 06/26/2006

THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION
WINTON HILL BUSINESS CENTER - BOX 161
6110 CENTER HILL AVENUE
CINCINNATI, OH 45224

EXAMINER	
GUIDOTTI, LAURA COLE	
ART UNIT	**PAPER NUMBER**
1744	

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/831,783	MCKENZIE ET AL.	
	Examiner	Art Unit	
	Laura C. Guidotti	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-39 and 42-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-39 and 42-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 33-39, 42-52, and 55-56 are rejected under 35 U.S.C. 103(a) as obvious over Sawyer, USPN 3,357,033 in view of Bock, USPN 5,369,831.

Sawyer discloses a sonic surface cleaner that comprises a housing (Figures 1-3), a gripping means (Figure 1 (12)), a cleaning head (Figures 1-3 (30)) that is adapted to be removably mounted to the housing (Column 2 Lines 52-57 and Column 3 Lines 33-41) wherein the cleaning head is interchangeable (Column 2 Lines 52-57 and Column 3 Lines 33-41), a transducer means mounted in the housing for oscillating (Column 4 Lines 17-22 disclose that the energy generated is "transformed" into sound waves and releases that energy at the surface as sonic Column 4 Lines 22-36) that is of a frequency in the *lower sonic range* and has a cleaning effect "analogous to the implosion effect produced by ultrasonic wave energy" (Column 4 Lines 69-72), and a power supply means (from wires (55) and (56) that lead to a cap (60), Column 3 Lines 10-18, and by Figure 1 appear to connect to a cord that would go to an outlet.) The gripping means is at a proximal end while the cleaning head is at a distal end (Figure 1). The device further comprises at least one solution storage means (Figure 1 (72) that contains a cleaning composition for cleaning, and a dispensing means (Figure 1 (71)) mounted in the housing for supplying the cleaning composition (Column 3 Lines 22-32). The cleaning head may be a sponge (Figure 3) so that the cleaning liquid is supplied to a surface that is coterminous (Figure 2) with the head in that the absorbent sponge portions disperse the liquid. The "second" housing is the housing labeled (11) in Figures1-3 wherein the "first" housing is the liquid supply (Figure 1 (72)). Further, the device of Sawyer may contain a surfactant in the reservoir (specifically a detergent, Column 5 Lines 42-43). Sawyer also discloses a method for removing soil from a hard surface that contacts the soil with a liquid and cleaning head and imparting ultrasonic

energy to it (Column 4 Line 73 to Column 5 Line 18 states that a cleaning composition or detergent is put into contact with a soil, then loosening the soil, and then rinsing the amount with water.) Sawyer does not disclose having a cleaning head surface area greater than *about* 6.25 cm^2 (although it appears in Figure 1 that the surface head is of at least a certain size to efficiently clean a floor surface) or having a power output of at least 0.02 watts/cm^2 (or alternatively, Sawyer states that there is an energy output of between 45 and 70 watts in Column 3 Lines 53-54, so the maximum surface area to have a power output of 0. 02 watts/cm^2 is 3500 cm^2.) Sawyer does not disclose that the cleaning head oscillates at a frequency from about 1000 Hz to about 100 kHz.

Bock discloses a therapeutic ultrasonic toothbrush that comprises a housing (22), a gripping means (Figure 1 (gripping portion of 22)), a cleaning head (Figures 1-3 (32)) that is adapted to be removably mounted to the housing and is capable of being interchangeable (Figure 2; Column 3 Line 6), a transducer means mounted in the housing for oscillating (Figure 1 (28); Column 3 Lines 10-18), and a power supply means which is mounted in the housing (Figure 1 (24)). The gripping means is at a proximal end while the cleaning head is at a distal end (Figures 1-3). The transducer means has an average ultrasonic oscillating frequency of from about 1000 Hz to about 100 kHz, (Title states that the device is "ultrasonic", Column 2 Lines 66-68, wherein "ultrasonic" is defined as "designating or a frequency of mechanical vibrations above the range audible to the human ear, i.e., above 20,000 vibrations per second" according to *The Webster's New World Dictionary of American English, Third College Edition*

Copyright © 1988 by Simon & Schuster, Inc., therefore wherein 20,000 vibrations per second is converted into Hertz, it is 20,000 Hz or 20 kHz).

It would have been obvious for one of ordinary skill in the art to have the transducer of Sawyer modified to create an ultrasonic oscillating frequency of 20 kHz, as Bock teaches, in order to have a more sufficient cleaning energy to remove debris from a surface and it would have been obvious to one of ordinary skill in the art to construct a cleaning head for a sonic surface cleaner that is used for a floor to have a cleaning head surface area greater than 6.25 cm^2 and having a power output of at least 0.02 watts/cm^3 because it would be desirable to have a larger cleaning surface area to reduce the time it takes to clean an area, to reduce the human effort in cleaning a large surface, and because it is most efficient for cleaning a large area. Furthermore, MPEP 2144.04 IV A states "In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

2. Claims 53, 54, 57, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer, USPN 3,357,033 in view of Bock, USPN 5,369,831.

Sawyer and Bock disclose all elements regarding the device as stated above however do not disclose instructions for using the product.

It would have been obvious for one of ordinary skill in the art to provide operating instructions, as it is well known in marketing and business to provide instructions for use of a product to protect the buyer and user.

Applicants Arguments

3. In the response of 10 April 2006, the Applicant contends that:

A. Sharp and Bock (either '624 or '831) in view of Dolinsky does not teach or suggest that the cleaning device provides a power output per unit of surface area of the cleaning head of at least about 0.02 watts/cm^2.

B. Sawyer does not disclose a cleaning head surface greater than about 6.25cm^2, a power output of at least 0.02 watts/cm^2 or any other power output. Sawyer does not have an average oscillating frequency of from about 1000 Hz to about 100KHz.

C. Bock ('831) does not teach or suggest an oscillating frequency of 20 KHz.

Response to Arguments

4. Applicant's argument **A**, filed 10 April 2006, with respect to Bock (either '624 or '831) in view of Dolinsky has been fully considered and are persuasive.

5. Applicant's arguments **B-C** filed 10 April 2006 have been fully considered but they are not persuasive.

B. Sawyer teaches a cleaning device intended to clean and polish floors, walls, and/or ceilings (Column 5 Lines 27-31). As stated above, Sawyer does not explicitly disclose any cleaning head surface dimension, particularly a surface greater than about 6.25cm^2 or a power output of at least 0.02 watts/cm^2. Sawyer does however state that

there is a motor output power of between 45 and 70 watts (Column 3 Line 53). It would have been obvious to construct a cleaning head for a sonic surface cleaner that is used for a floor to have a cleaning head surface area greater than 6.25 cm^2 and [having] a power output of at least 0.02 watts/cm^3 because it would be desirable to have a larger cleaning surface area to reduce the time it takes to clean an area, to reduce the human effort in cleaning a large surface, and because it is most efficient for cleaning a large area. Furthermore, MPEP 2144.04 IV A states "In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

C. As stated above, Bock teaches an ultrasonic cleaning device and that by cleaning with ultrasonic energy debris can be removed from a surface. Bock defines "ultrasonic" as being a frequency that is subsonic, sonic, or ultrasonic. Bock does not explicitly define a range of average oscillating frequency "from *about* 1000 Hz to *about* 100 kHz", however it is clearly recognized that an ultrasonic frequency ("ultrasonic" is defined as "designating or a frequency of mechanical vibrations above the range audible to the human ear, i.e., above 20,000 vibrations per second" according to *The Webster's New World Dictionary of American English, Third College Edition Copyright © 1988 by Simon & Schuster, Inc.,* therefore wherein 20,000 vibrations per second is converted into Hertz, it is 20,000 Hz or 20 kHz) is included in the range of "about 1000

Hz to about 100kHz." Therefore, since Bock uses an ultrasonic frequency (any frequency above 20,000 Hz), Bock teaches a frequency of above 20,000 Hz. (Bock teaches also subsonic and sonic frequencies that additionally fall into the claimed range).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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LCG

GLADYS J.P. CORCORAN
SUPERVISORY PATENT EXAMINER